

## **REMARKS**

Applicant respectfully requests reconsideration and allowance of the subject application.

Claims 1-74 were previously pending.

Claims 71-74 are previously withdrawn.

Claims 1 and 27-45 are currently amended.

Claims 1-70 are currently being examined.

### **Rejections Under 35 U.S.C. § 112**

Claims 27-38 were rejected under 35 USC § 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The phrase “The engines as recited....” was deemed indefinite.

Claims 27-38 have been currently amended to recite a network connection engine. Applicant submits that insertion of “network connection” overcomes the Examiner’s rejection of Claims 27-38.

Claims 31-33 and 43-45 were rejected under 35 USC § 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The term “related extended” was deemed indefinite.

Claims 31-33 and 43-45 have been currently amended to recite “associated extended...”. Applicant submits that insertion of “associated” overcomes the Examiner’s rejection of Claims 31-33 and 43-45.

The term “refine” in claim 33 was deemed indefinite. Claim 33 has been currently amended to recite “troubleshoot”. Applicant submits that amending “refine” to “troubleshoot” overcomes the Examiner’s rejection of Claim 33.

The term “improve” in claim 45 was deemed indefinite. Claim 45 has been currently amended to recite “troubleshoot a failure of”. Applicant submits that amending “improve” to “troubleshoot a failure of” overcomes the Examiner’s rejection of Claim 45.

Applicant therefore respectfully requests that the 35 U.S.C. § 112 second paragraph rejections be removed.

#### **Rejections Under 35 U.S.C. § 101**

Claims 39-45 were rejected as being directed to non-statutory subject matter. Claims 39-45 have been currently amended to recite one or more computer readable storage media.

Applicant submits that insertion of “storage” overcomes the rejection of Claims 39-45. The term “storage” limits the media to statutorily patentable media that are not mere transitory waves or signals.

In the light of the above amendments, Applicant respectfully requests the Examiner to remove the rejections under 35 U.S.C. § 101 for these claims.

#### **Rejections Under 35 U.S.C. § 102**

Claims 27 and 38 were rejected under 35 USC § 102(e) as being anticipated by US Pub. No. 2003/00069947 to Lipinski.

### **Claim 27**

Claim 27 has been amended to more particularly point out and distinctly claim the subject matter. Claim 27 as amended defines a network connection engine for connecting a device to a network, including:

- a communicative coupling engine to verify a communicative coupling between a device and a network;
- a network settings engine to configure network settings, wherein the network settings include a network address;
- a name resolution engine to associate a computing domain name with the network address; and
- a service connection engine to communicate with a network service; and
- wherein at least one of the communicative coupling engine, the network settings engine, the name resolution engine, or the service connection engine successively apply different connection techniques upon a failure of part of a connection process.

The Lipinski reference fails to show or disclose each element of Applicant's claim 27.

The Lipinski reference describes an Internet appliance connected to multiple network interfaces (paragraph [0022]) for multiple networks. The Lipinski network detection and configuration technique scans these multiple network interfaces (paragraph [0023] and Fig. 2, block 201) and tries to reach a

configuration server (e.g., DHCP) on one of these network interfaces (paragraph [0023]). For a connection attempt to any one given network, the Lipinski technique saves old interface configuration settings before trying new ones received from a configuration server, and reinstates the old settings if the new ones do not work; and then moves on to try the next network interface to see if a successful connection can be made there (paragraph [0023]).

Applicant's claim 27, on the other hand, recites "wherein at least one of the communicative coupling engine, the network settings engine, the name resolution engine, or the service connection engine *successively apply different connection techniques* upon a failure *of part of* a connection process." That is, claim 27 recites a staged process intensively aimed at *one* network interface, such as an interface for the connection between 119 and 106 in Applicant's Fig. 1. Applicant's goal is to break the connection process into successive stages, and try a toolbox of different connection techniques *at each stage* to obtain a working connection over the one network at all costs, if possible. The stages even include a physical layer stage: checking whether or not the wire cable is plugged into the network adapter.

If it is not possible to connect through the given single network interface, then Applicant's network connection and troubleshooting engine provides exquisitely crafted and detailed error feedback *for each stage* to aid connection in the alternate manner of showing what went wrong via troubleshooting. Thus, in one implementation, Applicant's invention greatly facilitates automatic or at least quickly successful connection of a gaming console to the Internet.

Applicant submits that the Lipinski reference fails to disclose each element of claim 27. Lipinski shows a technique for scanning multiple network interfaces

and trying to establish DHCP settings on one of them. Claim 27, on the other hand, recites attempting multiple techniques at each stage of a connection and returning detailed status and troubleshooting feedback at each stage. If one technique fails at a given stage, the next available technique for that stage is applied (compare Applicant's Figs. 3 and 4 with Lipinski's Fig. 2).

Since Lipinski does not show or disclose each element of claim 27, Applicant respectfully requests that the 35 USC 102(e) rejection be removed, and further submits that claim 27 is allowable over the Lipinski reference.

### **Claim 38**

Claim 38 as amended defines the network connection engine as recited in claim 27, further including:

- a mode selector to switch between automatically connecting the device and the network and manual connecting the device and the network, wherein manual connecting includes manual entry of at least one network setting.

For at least the reasons set forth above with respect to claim 27, Applicant submits that dependent claim 38 is also allowable over the Lipinski reference. Dependent claims contain the language of the claims from which they depend. Claim 38 depends from claim 27, therefore Applicant submits that this claim is allowable.

Further, besides being dependent on allowable base claim 27, claim 38 is also allowable because the Lipinski reference does not show or disclose all the

elements of claim 38. For example, it does not show or disclose **a mode selector to switch** between automatically connecting the device and the network and manual connecting the device and the network. Block 217 of Lipinski's Fig. 2 allows a user to accept or modify settings, but is not a mode selector that may be set to manual or automatic before a connection process begins.

Hence, Applicant respectfully requests that the 35 USC 102(e) rejection of claim 38 be lifted.

### **Rejections Under 35 U.S.C. § 103**

The Office rejects claims 1-16, 18, 19, 23, 24, 26, 46-61, 63, 64 and 69 under 35 U.S.C. §103(a) as being unpatentable over Lipinski in view of US Pub. No. 2002/0065941 to Kaan et al ("the Kaan Reference" or "Kaan").

The Office rejects claims 2 and 68 under 35 U.S.C. §103(a) as being unpatentable over Lipinski and Kaan further in view of US Pat. No. 6,958,996 to Xiong.

The Office rejects claims 25 and 70 under 35 U.S.C. §103(a) as being unpatentable over Lipinski and Kaan further in view of Xiong.

The Office rejects claims 17 and 62 under 35 U.S.C. §103(a) as being unpatentable over Lipinski and Kaan further in view of US Pub No. 2002/0059378 to Mustafa.

The Office rejects claim 28 under 35 U.S.C. §103(a) as being unpatentable over Lipinski further in view of US Pat. No. 7,016,948 to Yildiz.

The Office rejects claims 30-32 under 35 U.S.C. §103(a) as being unpatentable over Lipinski and Kaan further in view of US Pat. No. 5,790,779 to Ben-Natan ("Ben").

The Office rejects claim 45 under 35 U.S.C. §103(a) as being unpatentable over Lipinski- Kaan-Ben further in view of US Pat. No. 6,535,865 to Skaaning.

**Claim 1**

Claim 1, as currently amended, recites a method, including:

- connecting a device to a network service in a plurality of stages;
- wherein each stage attempts different connection techniques until the stage is successful;
- displaying in real-time, a status for each of the plurality of stages;
- if the status comprises an error status, further displaying in real-time, troubleshooting help;
- wherein the connecting in a plurality of stages includes:
- detecting a physical cable connection;
- establishing a data link by attempting different techniques until successful, including:
- attempting to obtain Internet Protocol (IP) settings via a Dynamic Host Configuration Protocol (DHCP) networking protocol;
- if obtaining the IP settings via the DHCP protocol is not successful, then displaying a status message, and
- querying a user for static IP settings;
- if the IP settings are obtained, performing a DNS name resolution;
- if the IP settings are not obtained then attempting to establish a data link over the network via a Point-to-Point Protocol over Ethernet (PPPOE);

- sending test data between the device and the network service; and
- determining a quality of service (QoS) of a connection between the device and the network service.

Neither Lipinski nor Kaan, alone or in combination, teach or suggest all the elements of Applicant's claim 1. For example, as described in detail above for claim 27, they do not teach or suggest attempting *different connection techniques* at each stage until the stage is successful and sending status information at each stage.

While the Office admits that Lipinski fails to disclose this aspect of claim 1, Kaan on the other hand describes a diagnostics button, which when clicked invokes a UCCD (Universal Communication Connection Device) diagnostics display. At the top of the display a current connection info display area shows the current connection and appropriate connection information. It however does not teach or suggest display of the status and error feedback of each of the stages as multiple connection techniques are leveraged per stage.

Since Lipinski and Kaan, alone or in combination, do not teach or suggest each element of Applicant's claim 1, Applicant respectfully requests that the 35 U.S.C. §103(a) rejection of claim 1 be removed and submits that claim 1 is allowable over Lipinski and Kaan.

#### **Claim 46**

Claim 46, as currently amended describes an automated method performed by a network connection-and- troubleshooting engine, including:



- dividing a task of connecting a device to a network or a network service into stages;
- selecting one of the stages;
- attempting a technique for completing the selected stage;
- displaying real-time status reports of the attempting and of a success or a failure of the technique;
- if the technique is successful, then selecting a subsequent stage and attempting a technique to complete the subsequent stage;
- if the technique is not successful, then if more techniques are available then selecting and attempting another technique for the stage; and
- displaying troubleshooting instructions if the technique is not successful and no more techniques are available.

Neither Lipinski nor Kaan, alone or in combination, teach or suggest each element of Applicant's claim 46. For example, they do not teach or suggest attempting a technique for completing a selected stage, displaying real-time status reports of the attempting and of a success or a failure of the technique, if the technique is successful, then selecting a subsequent stage and attempting a technique to complete the subsequent stage, and if the technique is not successful, then if more techniques are available then selecting and attempting another technique for the stage.

While Lipinski shows Fig. 2 to establish a connection between an Internet Appliance and a network via attempting one technique successively at each of multiple network interfaces, it fails to show or disclose leveraging multiple

connection techniques at each connection stage. Kaan, moreover, fails to cure the deficiency in Lipinski for making the U.S.C. §103(a) rejection, as detailed above for claim 1.

Since Lipinski and Kaan do not teach or suggest each element of Applicant's claim 46, Applicant respectfully submits that claim 46 is allowable over Lipinski in view of Kaan.

### **Claims 3 and 48**

Dependent claims 3 and 48 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 4 and 49**

Dependent claims 4 and 49 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 5 and 50**

Dependent claims 5 and 50 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 6 and 51**

Besides being dependent on allowable base claims 1 and 46 respectively, Lipinski and Kaan, alone or in combination, do not teach or suggest each element

of claim 6 or claim 51. For example, they do not teach or suggest that one or more techniques are attempted for completing the IP settings stage including one of a dynamic host configuration protocol (DHCP) technique, a point-to-point protocol over Ethernet (PPPoE) technique, and a bootstrap protocol (BOOTP) technique. As discussed above in reference to claims 1 and 46, Lipinski merely describes connecting an internet appliance to one or multiple network interfaces according to the process shown in Lipinski's Fig. 2. Fig. 2 however, does not show that one or more techniques are attempted for completing the IP settings stage including one of a dynamic host configuration protocol (DHCP) technique, a point-to-point protocol over Ethernet (PPPoE) technique, and a bootstrap protocol (BOOTP) technique.

Because it does not teach or suggest the elements of Applicant's claims 6 and 51, the combination fails for each of these claims. Applicant respectfully submits that claims 6 and 51 are allowable over Lipinski in view of Kaan.

### **Claims 7 and 52**

Dependent claims 7 and 52 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 8 and 53**

Dependent claims 8 and 53 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 9 and 54**

Dependent claims 7 and 52 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 10 and 55**

Dependent claims 10 and 55 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 11 and 56**

Besides being dependent on allowable base claims 1 and 46 respectively, Lipinski and Kaan, alone or in combination, do not teach or suggest each element of claim 11 or claim 56. For example, they do not teach or suggest that the real-time status includes a message describing one of the plurality of stages. The Office admits that Lipinski is silent on this aspect of claims 11 and 56 (Office Action, page 6). Kaan describes diagnostics button clicking which invokes a UCCD diagnostics display. It however does not describe that the display shows a real-time message describing one of the plurality of stages. Because it does not teach or suggest the elements of Applicant's claims 11 and 56, the combination fails. Applicant respectfully submits that claims 11 and 56 are allowable over Lipinski in view of Kaan.

### **Claims 12 and 57**

Besides being dependent on allowable base claims 1 and 46 respectively, Lipinski and Kaan, alone or in combination, do not teach or suggest all the elements of claim 12 or claim 57. For example, they do not teach or suggest that the message describes progress of a technique used to complete one of the plurality of stages. While Lipinski fails to describe this aspect of claims 12 and 57, Kaan firstly does not describe multiple stages and secondly, describes a UCCD diagnostics display but fails to show that the message displayed on the display describes progress of technique used to complete one of the plurality of stages. Because it does not teach or suggest the elements of Applicant's claims 12 and 57, the combination fails. Applicant respectfully submits that claims 12 and 57 are allowable over Lipinski in view of Kaan.

### **Claims 13 and 58**

Dependent claims 13 and 58 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 14 and 59**

Besides being dependent on allowable base claims 1 and 46 respectively, Lipinski and Kaan, alone or in combination, do not teach or suggest each element of either claim 14 or claim 59. For example, they do not teach or suggest that the real-time status includes a visual indicator of success or failure of one of the plurality of stages. Kaan describes a UCCD diagnostics display but does not show a visual indicator of success or failure of one of the plurality of stages. Because it

does not teach or suggest the elements of Applicant's claims 14 and 59, the combination fails. Applicant respectfully submits that claims 14 and 59 are allowable over Lipinski in view of Kaan.

### **Claims 15 and 60**

Besides being dependent on allowable base claims 1 and 46 respectively, neither Lipinski or Kaan, alone or in combination, teach or suggest each element of claim 15 or claim 60. For example, they do not teach or suggest that the troubleshooting help includes instructions for completing one of the plurality of stages. In the portion cited by the Office, Kaan describes a diagnostic display showing the case of troubleshooting a dialup modem connection. But it does not show or disclose that troubleshooting help shows instructions for completing one of the plurality of stages.

Because it does not teach or suggest the elements of Applicant's claims 15 and 60, the combination fails. Applicant respectfully submits that claims 15 and 60 are allowable over Lipinski in view of Kaan.

### **Claims 16 and 61**

Besides being dependent on allowable base claims 1 and 46 respectively, either Lipinski or Kaan, alone or in combination, teach or suggest all the elements of either claim 16 or 61. For example, they do not teach or suggest that the troubleshooting help includes instructions for completing a technique used to complete one of the plurality of stages.

Because it does not teach or suggest the elements of Applicant's claims 16 and 61, the combination fails. Applicant respectfully submits that claims 16 and 61 are allowable over Lipinski in view of Kaan.

**Claims 18 and 63**

Dependent claims 18 and 63 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

**Claims 19 and 64**

Dependent claims 19 and 58 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

**Claims 23 and 47**

Dependent claims 23 and 47 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

**Claim 24**

Dependent claim 24 depends from allowable claim 1. Hence, it is allowable by the virtue of its dependence from an allowable base claim.

### **Claim 26**

Besides being dependent on allowable base claim 1, Lipinski and Kaan, alone or in combination, do not teach or suggest all the elements of claim 26. In the portion cited by the Office, paragraphs [0072]-[0074] and [0088], Kaan describes a manager program that searches a network for a UCCD (Universal Communication Connection Device). If found, an Interface reports information in a “Messages” dialog box and changes a line between the Local network connection button and the UCCD button to green. This line represents connections between various components and is color coded.

Claim 26, however, teaches that a network connection status screen that can display a status message for each stage of a connection process, advice, troubleshooting help, and extended error information. It displays a different message for a given stage in real time, depending on the status of the connection attempt for that stage.

Because it does not teach or suggest the elements of Applicant’s claim 26, the combination fails. Applicant respectfully submits that claim 26 is allowable over Lipinski in view of Kaan.

### **Claim 69**

Dependent claim 69 depends from allowable claim 46. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claims 2 and 68**

Besides being dependent on allowable base claims 1 and 46 respectively, Lipinski, Kaan, and Xiong, alone or in combination, do not teach or suggest all the



elements of either claim 2 and 68. The Office admits that Lipinski-Kaan fails to teach a technique for completing a stage of a plurality of stages and if the first technique fails, then automatically attempting one or more subsequent techniques to complete the stage (Office Action, Page 12-13). Further, Xiong also does not teach or suggest using a first technique to complete a stage of a plurality of stages and if the first technique fails, then automatically attempting one or more subsequent techniques to complete the stage. Rather, Xiong describes repeatedly trying for the same protocol till it is able to establish the correct connection.

Because it does not teach or suggest the elements of Applicant's claims 2 or 68, the combination fails. Applicant respectfully submits that claims 2 and 68 are allowable over Lipinski-Kaan in view of Xiong.

#### **Claims 25 and 70**

Besides being dependent on allowable base claims 1 and 46 respectively, either Lipinski in view of Kaan, further in view of Xiong, alone or in combination, teach or suggest all the elements of either claim 25 and 70, for the reasons just described above.

Because it does not teach or suggest the elements of Applicant's claims 25 and 70, the combination fails. Applicant respectfully submits that claims 25 and 70 are allowable over Lipinski-Kaan in view of Xiong.

#### **Claims 17 and 72**

Besides being dependent on allowable base claims 1 and 46 respectively, Lipinski, Kaan, and Mustafa, alone or in combination, do not teach or suggest all the elements of either claim 17 or claim 72. The Office admits that Lipinski-Kaan

fail to teach that the troubleshooting help includes a serial number of the device (Office Action, Page 14). Further, Mustafa also does not teach or suggest that the troubleshooting help includes a serial number of the device. Mustafa describes a method and system for providing on-line assistance to the end users in a networking environment using multimedia applications. It has a client system displaying an icon for on-line help. In response to a single action being performed, a unique serial number assigned to a user is sent to a storage media for initializing a help session. At the storage media a user's profile is identified through the received serial number from a client system, the user's profile information is transmitted to a multimedia helping agent system, where user priority is identified through the received user profile information, and based on the priority ranking a multimedia connection with the client system is initialized through one of the many networking connectivity options available. And finally the Web page address information along with multimedia helping information is transmitted to the client system. Thus, Mustafa describes assigning a serial number to a *user* requesting on-line help. It does not teach that trouble shooting help includes serial number of the *device*.

Because it does not teach or suggest the elements of Applicant's claims 17 or 72, the combination fails. Applicant respectfully submits that claims 17 and 72 are allowable over Lipinski-Kaan in view of Mustafa.

### **Claim 28**

Besides being dependent on allowable base claim 27, neither Lipinski or Yildiz, alone or in combination, teach or suggest all the elements of claim 28. The Office admits that Lipinski fails to teach a quality of service module to test and

record quality of service parameters in a network (Office Action, Page 14). Yildiz describes that wired networks, during operation, encounter network difficulties which negatively impact network responsiveness and throughput. As a result, network users experience productivity loss, network processing delays and other disruptions. A measure of a network's performance is often referred to as the quality of service. QoS is typically measured by responsiveness and by throughput of data across a communications channel. In order to troubleshoot, maintain, and optimize the performance of communication networks, the data traffic flowing through the communication channel is monitored, tested and analyzed to provide rapid detection, diagnosis and correction of network failure and system breakdown, through use of tools developed for this purpose. However, Yildiz does not teach a dedicated QoS module or technique as part of a staged connection process to test and record quality of service parameters in a network.

Because it does not teach or suggest the elements of Applicant's claim 28, the combination fails. Applicant respectfully submits that claim 28 is allowable over Lipinski in view of Yildiz.

#### **Claim 29**

Dependent claim 29 depends from allowable claim 27. Hence, it is allowable by the virtue of its dependence from allowable base claim.

#### **Claim 34**

Dependent claim 34 depends from allowable claim 27. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claim 37**

Dependent claim 37 depends from allowable claim 36. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claim 35**

Dependent claim 35 depends from allowable claim 1. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claims 20 and 65**

Dependent claims 20 and 65 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 21 and 66**

Dependent claims 21 and 66 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 22 and 67**

Dependent claims 22 and 67 depend from allowable claims 1 and 46 respectively. Hence, they are allowable by the virtue of their dependence from allowable base claims.

### **Claims 36**

Dependent claim 36 depends from allowable claim 27. Hence, it is allowable by the virtue of its dependence from an allowable base claim.

### **Claim 30**

Besides being dependent on allowable base claim 27, neither Lipinski-Kaan or Ben, alone or in combination, teach or suggest all the elements of claim 30. The Office admits that Lipinski-Kaan fail to teach an error logging engine to record errors during one or more connection attempts (Office Action, Page 18). Ben describes a method and system for consolidating related error reports. A facility receives error reports and success reports generated by programs. When the facility receives a novel error report specifying an error source for which no error state is set, it sets an error state corresponding to the error report. The facility also generates a consolidated error report at this point, which is delivered to an error state reporting subsystem. The error state reporting subsystem adds the consolidated error report to an error log and/or displays it to a user. However, Ben does not teach that errors are recorded during *one or more connection attempts* that describe the problems with the attempts *in each stage*.

Because it does not teach or suggest the elements of Applicant's claim 30, the combination fails. Applicant respectfully submits that claim 30 is allowable over Lipinski-Kaan in view of Ben.

### **Claim 31**

Dependent claim 31 depends from allowable claim 27. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claim 32**

Besides being dependent on allowable base claim 27, neither Lipinski-Kaan-Ben or Skaaning, alone or in combination, teach or suggest all the elements of claim 32. The Office admits that Lipinski-Kaan-Ben fail to teach that the failure record and associated extended error information are uploaded for statistical treatment of multiple connection failures (Office Action, Page 19). Skaaning describes a printing diagnosis system which utilizes five Bayesian networks. A first Bayesian network handles all errors where a customer does not get output from a printer when attempting to print, and where the customer gets corrupted output. A second Bayesian network handles all errors where the customer gets unexpected output. A third Bayesian network handles all types of error codes that can be seen on a control panel of the printer. A fourth Bayesian network handles miscellaneous erroneous behavior of the printer not covered by the first Bayesian network, the second Bayesian network, and the third Bayesian network. A fifth Bayesian network represents all possible settings in a printing system for the printer. Thus, Skaaning teaches ***error handling of different types of errors using different Bayesian networks***. However, Skaaning does not teach that the failure record and associated extended error information are uploaded for statistical treatment of ***multiple connection failures*** within ***different stages*** of a connection process. Because it does not teach or suggest the elements of Applicant's claim 32, the combination fails. Applicant respectfully submits that claim 32 is allowable over Lipinski-Kaan-Ben in view of Skaaning.

### **Claims 33**

Dependent claim 33 depends from allowable claim 27. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claims 39**

Claim 39, as currently amended recites one or more computer readable storage media containing instructions that are executable by a computer to perform connection stages, including:

- verifying a communicative coupling between a device and a network;
- if the communicative coupling is verified, then obtaining an IP address using the communicative coupling, wherein obtaining an Internet Protocol (IP) address using dynamic host configuration protocol (DHCP) is attempted and if an IP address is not obtained using DHCP then obtaining an IP address using point-to-point protocol over Ethernet (PPPoE) is attempted;
- if an IP address is obtained, then querying a domain name system (DNS) to resolve a domain name; and
- if the domain name is resolved, then attempting communication with an online service using the IP address or the domain name.

Neither Lipinski nor Xiong, alone or in combination, teach or suggest all the elements of Applicant's claim 39. For example, they do not teach or suggest that obtaining an Internet Protocol (IP) address using dynamic host configuration

protocol (DHCP) is first attempted as part of a staged connection process that produces staged troubleshooting help and if an IP address is not obtained then obtaining an IP address using point-to-point protocol over Ethernet (PPPoE) is subsequently attempted.

Xiong describes the case where an Internet service provider requires the use of the PPPoE protocol. The personal computer attempts to communicate with ISP using both DHCP and PPPoE. If the PPPoE request is received before the DHCP request, then the router attempts to communicate with ISP using the PPPoE client set-up process. Because the ISP uses PPPoE, the router receives a response which confirms that the ISP is using PPPoE. The router thereafter uses PPPoE in supporting communications between personal computer and ISP. If the DHCP request is received before the PPPoE request, ***the router repeatedly attempts to establish communications with ISP*** using the DHCP client set-up process, while monitoring the link between the router and personal computer for a PPPoE request from personal computer. When a PPPoE request is received from personal computer by router, it attempts to establish communications with the ISP using PPPoE and, following a successful response, thereafter supports communications with ISP using PPPoE. However, Xiong does not disclose that a dynamic host configuration protocol (DHCP) technique is first attempted to complete the network settings stage and if the DHCP technique fails, then a point-to-point protocol over Ethernet (PPPoE) technique is automatically attempted to complete the network settings stage, and play-by-play status and troubleshooting help is simultaneously generated.



The combination of Lipinski and Xiong fails to teach or suggest elements of Applicant's claim 39. Therefore, Applicant respectfully submits that claim 39 is allowable over Lipinski in view of Xiong.

#### **Claims 40**

Dependent claim 40 depends from allowable claim 39. Hence, it is allowable by the virtue of its dependence from allowable base claim.

#### **Claims 41**

Dependent claim 41 depends from allowable claim 39. Hence, it is allowable by the virtue of its dependence from allowable base claim.

#### **Claims 42**

Dependent claim 42 depends from allowable claim 39. Hence, it is allowable by the virtue of its dependence from allowable base claim.

#### **Claims 43**

Dependent claim 43 depends from allowable claim 39. Hence, it is allowable by the virtue of its dependence from allowable base claim.

#### **Claims 44**

Dependent claim 44 depends from allowable claim 39. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **Claims 45**

Dependent claim 45 depends from allowable claim 39. Hence, it is allowable by the virtue of its dependence from allowable base claim.

### **CONCLUSION**

Applicant respectfully submits that claims 1-70 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

Dated: January 25, 2008

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